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DORITY & MANNING, P.A.
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EXAMINER	
LANGDON, EVAN H	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/726,267
Filing Date: December 02, 2003
Appellant(s): SCHULLER ET AL.

Tim E. Williams
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 15 November 2007 appealing from the Office action mailed 23 May 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,507,226	Burke et al.	04-1996
5,833,776	Labesky	5,833,766

belt. (2000). In Collins English Dictionary. Retrieved October 10, 2007, from http:llwww.credoreference.comlentry12621843

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 23, 24, 27-29, 33-35 and 37-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burke et al (US 5,507,226) in view of Labesky (US 5,833,776).

Burke discloses an apparatus for friction driving a spool, the apparatus comprising:

a friction roll having at least one rotatable roll body 12 disposed thereon; and

a friction ring 14 carried on the rotatable roll body, the friction ring configured as a belt that is removable.

Burke fails to show the friction ring 14 removable by having two open ends bound together by a fastening apparatus.

Labesky teaches a ring 10 with ring fastening means in general having two open ends bound together by a fastening apparatus 24, 26. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. *Ex parte masham,* 2 USPQ 2d 1647 (1987).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the friction ring of Burke to include a fastening means general having two open ends bound together by a fastening apparatus as suggested by Labesky, to more easily remove the friction ring of Burke.

In regards to claims 24, 27 and 28, Burke as modified by Labesky teaches the fastening apparatus also affixes the friction ring to the roll body to secure the friction ring to the roll body by an auxiliary fastener that is equally distributed over the circumference of the roll body 12 (Burke, Col. 4 lines 49-61).

In regards to claims 29 and 33, Burke as modified by Labesky teaches the fastening apparatus comprises two connectors 24, 26, whereby one of the connectors is secured to each of the connectors is secured to each of the open ends of the friction ring, where the connectors include hooks (Labesky Fig. 1 and 2).

In regards to claims 34 and 35, Burke as modified by Labesky teaches the hooks have a slanted shape (Labesky, Alternative embodiments - Fig. 16) and where the hooks are subjected to a load in a locking direction relative to a direction of drive of the friction ring when the connectors have secured a friction ring to the roll body.

In regards to claims 37-40, Burke as modified by Labesky teaches the friction ring is elastically constructed in a length direction so that the friction ring when installed on the roll body is subject to a tensile force (col. 3 line 64 to col. 4 line 62, Burke). In regards to claims 38-40, the limitation that the elastic friction ring exhibits a cross-section that diminishes from a center portion of the friction ring to the edge when no tensile force is acting on the friction ring, where the cross-section is about constant when subject to a tensile force equal to that of

installation on the roll body and where the ring exhibits a width that diminishes with increasing distance from the ends of the friction ring when no tensile force is acting on the friction ring are properties that are inherent to an elastic material that is ring shaped and subject to a tensile force.

In regards to claim 41, Burke as modified by Labesky teaches the friction ring is preshaped in a curvature that conforms to a curvature of a circumference of the roll body (Burke, Fig 2).

In regards to claim 41, Burke as modified by Labesky teaches the fastening apparatus 24,26 is preshaped in a curvature that conforms to a curvature of a circumference of the roll body (Labesky, Fig. 2).

In regards to claims 43-46, Burke as modified by Labesky teaches the ends of the friction ring are joined by an adhesive (Labesky, col. 9 lines 11-19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the fastening ends of Burke as modified by Labesky to include an adhesive joining the interlocking elements as suggested by Labesky, to secure the engagement of the interlocking elements.

The examiner is taking official notice that having prepared points of adhesion and and adhesive that is capable of being activated by at least one of heat or light are techniques that are well known in the art of adhesion.

(10) Response to Argument

I. Independent Claim 23 is unpatentable over Burke et al in view of Labesky

The Appellant focuses on the fact that the friction ring of Burke is constructed of an intermediate layer 38 made of a rigid metal or plastic and an outer layer 30 formed of a rubber.

The fact that Burke's friction ring has more than one lay is not dispositive since claim 23 broadly recites a friction ring.

A. Burke et al in view of Labesky teach all of the limitation if independent claim 23 and its dependant claims

The Appellant contends that the nip sleeve 14 of Burke is not configured as a belt, but is a rigid metal sleeve. As stated above, the nip sleeve is a friction ring having a rigid plastic or metal intermediate layer and a rubber outer, therefore, the reference to the ring as a 'metal' sleeve is inaccurate and misleading. In addition, the Appellant has not provided a definition of what is a 'belt.' The only reference in the Appellants specification (as amended and dated 11/3/2004) to the claimed limitation 'belt' is a "belt like friction ring" (Spec. 3 ll. 9) and a "kind of belt or girdle" (Spec. 8 ll. 8). Collins English Dictionary defines belt as "any encircling or transverse band, strip, or strip." The nip sleeve 14 having an outer rubber layer 30 meets the definition of belt.

The Appellant contents that Burke is not a belt that can be flexibly wrapped around a nip roller. However, the limitation 'flexibly wrapped' is not claimed and is not encompassed by the definition of belt. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Lastly, the Appellant contends that Labesky is not a belt. Labesky is relied upon to teach a ring 10 with ring fastening means in general having two open ends bound together by a fastening apparatus 24, 26.

B. The modification of Burke et al in view of Labesky is an improvement on Burke and is commensurate with Burke et al.'s indented purpose.

As correctly stated by the Appellant, an objective of Burke is to have a seamless, gapless, nip roller (Col. 2 ll. 31-34). Appellant contends that combining Burke with the fastening means of Labesky would create a seam or joint in the ring of the rip roller and would be contrary to Burke's intneded purpose. To illustrate this, the Appellant has chose the only figure in the Burke reference, Figure 8, that shows and outline of the connection. Figure 8 is an enlarged view of the connection (Col. 5 ll. 45-48) the outline that appears to be a gap is merely for illustration. Labesky teaches that the gap or spacing shown is closed when the element 26 is moved into interlocking relationship with element 24 (Col. 7 ll. 32-39). As stated above, Labesky is relied upon to teach a ring with ring fastening means, and the fastening means taught produces no gaps or seams in the connection.

The Appellant next argues that Burke's method or removing the nips sleeve is by sliding the ring on and of and modifying Burke with Labesky would change Burkes method or removing. The problem to be solved by Burke with this method of removing is to enable the user to remove the nip sleeve without having to remove the nip roller from the machine (Col. 3 ll. 1-5). Labesky's teaching would allow for removing and reattaching a nip sleeve without having to remove the nip roller.

C. The combination of Burke et al. with Labesky would be reasonably successful.

Burke's friction nip sleeve used to advance a web of material and Labesky' s circular ring with a fastening means were known in the prior art and one skilled in the art could have

combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yield predictable results to one of ordinary skill in the art at the time of the invention, i.e. a removable friction nip sleeve.

In response to Appellant's argument that the frustoconical surface of the ring of Labesky could never be used on a friction roll, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Labesky is only relied upon to teach a ring with ring fastening means to remove and reattach a ring.

D. Labesky is analogous to the Appellant's claimed invention.

In response to Appellant's argument that Labesky is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Labesky is reasonably pertinent to the particular problem with which the applicant was concerned. The particular problem with which the applicant was concerned is to "create a friction ring for a friction roll which . . . can be exchanged with out disassembly and assembly of the friction roll and so exchanged in a simple and time saving manner." (Spec. 1 line 20 - 2 line 1). As stated above this is the same problem sought to be solved by Burket (Col. 3 ll. 1-5). In regard to Labesky, the problem to be solved is

to join to free ends to form a ring. Lebesky relates to the state problem as teaching of attaching free ends of a ring.

II. Dependant Claims 27 and 28 are unpatentable because at least *one* auxiliary fastener is taught by Burke as modified by Labesky.

The Appellant contends that the "auxiliary fastener" as claimed in dependant claim 27 is not taught by the references. Claim 27 only claims *one* auxiliary fastener and claim 28 further limits the *one* auxiliary fastener is "equally distributed over the circumference" of the friction roll. Burke discloses the ring as a friction fit and the internal layer is an auxiliary fastener that is equally distributed over the circumference of the roll body 12 (Burke, Col. 4 lines 49-61).

III. Dependant Claims 29 and 33-35 are unpatentable because Burke as modified by Labesky teaches connectors as hooks.

The Appellant argues that the limitation 'connectors' means separate, non-integral, means that are connected to the open ends of the ring. However, a reasonable interpretation of connector does not mean *not* integral. A reasonable interpretation is that the first open end of the ring as taught by Labesky has a connector having a first shape, and the second open end has a second connector having a second shape configured to connect with the first shape. If the two ends had no connectors, then the free ends of ring would not be able to connect. The fact that the connectors as taught by Labesky are integral is not dispositive.

The Appellant contends that the connectors 24 and 26 as taught by Labesky are not hooks. The Appellant provides no definition of what a hook is and no reason as to why the structure in Figures 1 and 2 of Labesky are not hooks. As seen in Figures 1 and 2, element 26 hooks into corresponding opening 24.

Next, without stating why the shape of the connectors as taught by Labesky are not hooks, the Appellant further claims the hooks have a slant shape and that the numerous alternative embodiments in Figures 16-23 of Lebesky do not show a connector having a slant shape. Again, the Appellant provides no definition of what a hook is and no reason as to why the structure in Labesky are not hooks, and further, no reasoning as to why the alternative embodiments of the connectors are not slanted. As seen in Figures 16-23, element connectors are slanted in shape.

In regard to claim 35, the Appellant contends that the hooks taught by Lebseky are not subject to a load in the locking direction. This limitation is expressly taught in Lebseky Col. 1 lines 12-15.

IV. Dependant Claims 38-40 are unpatentable because they relate to properties that are inherent to a ring shaped elastic material subjected to tensile force.

In regard to claim 38, Burke as modified by Labesky teaches the friction ring is elastically constructed in a length direction so that the friction ring when installed on the roll body is subject to a tensile force (col. 3 line 64 to col. 4 line 62, Burke). In regards to claims 38-40, the limitation that the elastic friction ring exhibits a cross-section that diminishes from a center portion of the friction ring to the edge when no tensile force is acting on the friction ring, where the cross-section is about constant when subject to a tensile force equal to that of installation on the roll body and where the ring exhibits a width that diminishes with increasing distance from the ends of the friction ring when no tensile force is acting on the friction ring are properties that are inherent to an elastic material that is ring shaped and subject to a tensile force.

The Appellant uses that example of a rubber band to contradict this reasoning, but has provided not evidence to support their contention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Evan Langdon

1/4/08

Conferees:

Evan Langdon

Meredith Petravick

Peter Cumo

1/6/08.